Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

        1.   (Currently Amended) An ATM (Asynchronous Transfer Mode) bridge device to which an ATM network and a layer 2 network are connected, comprising: a first learning unit to learn a transmitter address of a packet input from said ATM network and information about a transmission path through which said packet had been transmitted and to judge a destination of said packet based on a result from the learning, a second learning unit to learn a transmitter address of a packet input from said ATM network and information about a transmission path to which said packet is to be output; and a packet scrapping judging unit to compare said transmitter address of said packet input from said ATM network and information about said transmission path through which said packet had been transmitted with said transmitter address of said packet learnt by said second learning unit and information about said transmission path to which said packet is to be output and, if said transmitter address of said packet input from said ATM network and information about said transmission path through which said packet had been transmitted are matched with said transmitter address of said packet learnt by said second learning unit and information about said transmission path to which said packet is to be output, to scrap said packet,

        wherein, when a <u>first</u> packet is transmitted from a first device on the ATM network side to a second device on said ATM network side, a loop-back transmission mode is set to said <u>first</u> packet to be received by said second device; and

        wherein, when a <u>second</u> packet is transmitted by a broadcast method from a first device on said layer 2 network side to a <u>plurality of devices</u> ~~device~~ on said ATM network side, a loop-back transmission mode is set to said <u>second</u> packet to be received by <u>said</u> <u>plurality of devices</u> ~~a second device~~ on said ATM network side.

        2-3.   (Canceled)

        4.   (Original) The ATM bridge device according to claim 1, wherein, when a packet is transmitted by a broadcast method from a first device on said ATM network side to

other devices on said ATM network side, a loop-back transmission mode is set to said packet to be received by a second device on said ATM network side.

5.   (Original) The ATM bridge device according to claim 1, wherein, when a packet is transmitted by a broadcast method from a first device on said ATM network side to other devices on said ATM network side, a loop-back transmission mode is set to said packet to be received by a second device and a third device on said ATM network side.

6.   (Canceled)

7.   (Original) The ATM bridge device according to claim 1, wherein, when a packet is transmitted from a first device on said ATM network side to a first device on said layer 2 network side, a loop route is formed on said layer 2 network side.

8.   (Original) The ATM bridge device according to claim 1, wherein logical transmission paths to be used for bidirectional connection in said ATM network are different from each other.

9.   (Original) The ATM bridge device according to claim 1, wherein a VRRP (Virtual Router Redundancy Protocol) is applied in said ATM network and said layer 2 network.

10.   (Currently Amended) A loop detecting method for detecting a loop formed in an ATM bridge device to which an ATM network and a layer 2 network are connected, said method comprising: a first learning step of learning a transmitter address of a packet input from said ATM network and information about a transmission path through which said packet had been transmitted and to judge a destination of said packet based on a result from the learning; a second learning step of learning a transmitter address of a packet input from said ATM network and information about a transmission path to which said packet is to be output; and a packet scrapping judging step of comparing said transmitter address of said packet input from said ATM network and information about said transmission path through which said packet had been transmitted with said transmitter address of said packet learnt in said second learning step and information about said transmission path to which said packet is

to be output and, if said transmitter address of said packet input from said ATM network and information about said transmission path through which said packet had been transmitted are matched with said transmitter address of said packet learnt in said second learning step and information about said transmission path to which said packet is to be output, to scrap said packet,

wherein, when a first packet is transmitted from a first device on said ATM network side to a second device on said ATM network side, a loop-back transmission mode is set to said first packet to be received by said second device, and

wherein, when a second packet is transmitted by a broadcast method from a first device on said layer 2 network side to a plurality of devices device on said ATM network side, a loop-back transmission mode is set to said second packet to be received by said plurality of devices a second device on said ATM network side.

11-12. (Canceled)

13.   (Original) The loop detecting method according to claim 10, wherein, when a packet is transmitted by a broadcast method from a first device on said ATM network side to other devices on said ATM network side, a loop-back transmission mode is set to said packet to be received by a second device on said ATM network side.

14.   (Original) The loop detecting method according to claim 10, wherein, when a packet is transmitted by a broadcast method from a first device on said ATM network side to other devices on said ATM network side, a loop-back transmission mode is set to said packet to be received by a second device and a third device on said ATM network side.

15.   (Canceled)

16.   (Original) The loop detecting method according to claim 10, wherein, when a packet is transmitted from a first device on said ATM network side to a first device on said layer 2 network side, a loop route is formed on said layer 2 network side.

17.   (Original) The loop detecting method according to claim 10, wherein logical transmission paths to be used for bidirectional connection in said ATM network are different from each other.

18.   (Original) The loop detecting method according to claim 10, wherein a VRRP is applied in said ATM network and said layer 2 network.

19.   (Currently Amended) An ATM (Asynchronous Transfer Mode) bridge device to which an ATM network and a layer 2 network are connected, comprising: a first learning means to learn a transmitter address of a packet input from said ATM network and information about a transmission path through which said packet had been transmitted and to judge a destination of said packet based on a result from the learning; a second learning means to learn a transmitter address of a packet input from said ATM network and information about a transmission path to which said packet is to be output; and a packet scrapping judging means to compare said transmitter address of said packet input from said ATM network and information about said transmission path through which said packet had been transmitted with said transmitter address of said packet learnt by said second learning means and information about said transmission path to which said packet is to be output and, if said transmitter address of said packet input from said ATM network and information about said transmission path through which said packet had been transmitted are matched with said transmitter address of said packet learnt by said second learning means and information about said transmission path to which said packet is to be output, to scrap said packet,

wherein, when a first packet is transmitted from a first device on the ATM network side to a second device on said ATM network side, a loop-back transmission mode is set to said first packet to be received by said second device, and

wherein, when a second packet is transmitted by a broadcast method from a first device on said layer 2 network side to a plurality of devices device on said ATM network side, a loop-back transmission mode is set to said packet to be received by said plurality of devices a second device on said ATM network side.

20-21. (Canceled)

22.   (Original) The ATM bridge device according to claim 19, wherein, when a packet is transmitted by a broadcast method from a first device on said ATM network side to other devices on said ATM network side, a loop-back transmission mode is set to said packet to be received by a second device on said ATM network side.

23.   (Original) The ATM bridge device according to claim 19, wherein, when a packet is transmitted by a broadcast method from a first device on said ATM network side to other devices on said ATM network side, a loop-back transmission mode is set to said packet to be received by a second device and a third device on said ATM network side.

24.   (Canceled)

25.   (Original) The ATM bridge device according to claim 19, wherein, when a packet is transmitted from a first device on said ATM network side to a first device on said layer 2 network side, a loop route is formed on said layer 2 network side.

26.   (Original) The ATM bridge device according to claim 19, wherein logical transmission paths to be used for bidirectional connection in said ATM network are different from each other.

27.   (Original) The ATM bridge device according to claim 19, wherein a VRRP (Virtual Router Redundancy Protocol) is applied in said ATM network and said layer 2 network.